

CPD Occasional Paper Series

**Environmental Debates in the WTO:
Defining Bangladesh's Interests**

Paper 35

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The present paper titled ***Environmental Debates in the WTO: Defining Bangladesh's Interests*** has been prepared by *Dr Fahmida A Khatun*, Research Fellow, CPD under the CPD's programme on ***Capacity Building in Trade-Environment Issues in Bangladesh: Addressing the WTO Work Programme***.

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Table of Contents

PART A:

INTRODUCTION	2
---------------------	---

PART B:

MULTILATERAL ENVIRONMENTAL AGREEMENTS AND THE WTO	7
--	---

I. Introduction	7
II. Trade and Environment in the Negotiating Agenda	7
III. Emergence of Environmental Issues in the WTO	9
3.1 Milestones: Outcome of Ministerial Meetings	13
3.2 Doha Development Agenda on Trade and Environment	15
IV. Trade Related Multilateral Environmental Agreements	17
V. Post Doha Scenario	18
5.1 Developments Since Doha	18
5.2 Current State of Play and Position of Countries	20
VI. Perspectives of Bangladesh	23

PART C:

LIBERALISATION OF ENVIRONMENTAL GOODS AND SERVICES	27
---	----

VII. Introduction	27
VIII. What are Environmental Goods and Services	27
IX. Benefits of Liberalisation of Environmental Goods and Services	30
X. Trade of Environmental Goods and Services	31
10.1 Barriers to Trade of Environmental Goods and Services	31
10.2 Markets for Environmental Goods and Services	32
XI. Current State of Play	33
11.1 Environmental Goods	33
11.2 Environmental Services	35
XII. Issues for Bangladesh	37

PART D:

THE EFFECT OF ENVIRONMENTAL MEASURES ON MARKET ACCESS	41
--	----

XIII. Introduction	41
---------------------------	----

XIV. Environmental Measures	42
------------------------------------	----

14.1 Types of Environmental Measures	42
--------------------------------------	----

14.2 WTO Agreements on Environmental Measures	45
---	----

14.3 Trends in Environmental Measures	46
---------------------------------------	----

XV. Post Doha Development	47
----------------------------------	----

XVI. Implications for Bangladesh	48
---	----

PART E:

CONCLUSION AND RECOMMENDATIONS	52
---------------------------------------	----

REFERENCES	55
-------------------	----

LIST OF TABLES

	<i>Page No.</i>
Table 1 Work Programme of the Committee on Trade and Environment	13
Table 2 Selected Trade Related MEAs	17
Table 3 Specific Trade Obligations Among Parties in the Important MEAs	18
Table 4 Submissions/Contributions on Trade-Environment Issues Since Doha	24
Table 5 Broad Category Environmental Goods	30
Table 6 Submissions/Contributions on Environmental Goods and Services Since Doha	37
Table 7 Bangladesh's Imports of OECD Classified Environmental Goods	38
Table 8 Total and Environmental Imports of Bangladesh	38
Table 9 Submissions/Contributions on Market Access	48

LIST OF ABBREVIATIONS

AoA	Agreement on Agriculture
APEC	Asia Pacific Economic Cooperation
ASEAN	Association of South East Asian Nations
CB	Capacity Building
CBD	Convention on Bio Diversity
CCAMLR	Convention for the Conservation of Antarctic Marine Living Resources
CITES	Convention on International Trade in Endangered Species
CPC	Central Product Classification
CPD	Centre for Policy Dialogue
CTBT	Committee on Technical Barriers to trade
CTD	Committee on Trade and Development
CTE	Committee on Trade and Development
CTESS	Special Session of the Committee on Trade and Development
CTS	Council for Trade in Services
DPG	Domestically Prohibited Goods
DSB	Dispute Settlement Body
EGS	Environmental Goods and Services
EMIT	Environmental Measures and International Trade
EU	European Union
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
ICCAT	International Commission for the Conservation of Atlantic Tunas
IFF	International Forum on Forests
IPPC	International Plant Protection Convention
ISO	International Organisation for Standardisation
ITTO	International Tropical Timber Organisation
LCA	Life Cycle Analysis
LDC	Least Developed Countries
MEA	Multilateral Environmental Agreement
NGMA	Negotiating Group on Market Access
NGO	Non-Government Organisation

npr	Non-Product Related
NTB	Non-Tariff Barrier
OECD	Organisation for Economic Cooperation and Development
PIC	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
PPM	Production Process Method
POPs	Stockholm Convention on Persistent Organic Pollutants
R & D	Research and Development
SCM	Subsidies and Countervailing Measures
SIA	Sustainable Impact Assessment
SME	Small and Medium Enterprise
SPS	Sanitary and Phytosanitary Measures
STO	Specific trade Obligation
TA	Technical Assistance
TB	Tariff Barrier
TBT	Technical Barriers to Trade
TNC	Trade Negotiating Committee
TRIPS	Trade Related Intellectual Property Rights
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on Law of Sea
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
USA	United States of America
WCED	World Commission on Environment and Development
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation

PART A

Environmental Debates in the WTO: Defining Bangladesh's Interests

INTRODUCTION

With the integration of the global economy and the increased economic interdependence among countries the environmental issue has emerged as an important area of concern for policy makers, particularly since the 1990s. It is during this period that trade liberalisation took place at a faster pace than ever before, and environment became a much-discussed issue in the context of its interface with trade policies. Concern for the environment arose due to the fact that economic development has put increased pressure on both national resources and globally shared resources. The World Commission on Environment and Development (WCED) described it in the following way:

“The promotion of increased volumes of commodity exports has led to cases of unsustainable overuse of the natural resource base. While individual cases may not fit this generalisation, it has been argued that such processes have been at work in ranching for beef, fishing in both coastal and deep-sea waters, forestry, and the growing of some cash crops. Moreover, the prices of commodity exports do not fully reflect the environmental costs to the resource base” (WCED, 1987).

The economic effects of trade and environmental policies are manifested in several ways. Trade is considered to be beneficial for the economy since trade liberalisation-induced accelerated growth potentially makes more resources available for the protection of the environment. Trade liberalisation may also precipitate changes in product composition entailing less resource-intensive and less environmentally damaging production processes. For example, if production of manufactures moves to developing countries there may be a shift towards more labour-intensive and less capital and energy intensive technologies that is beneficial to the environment. Not only more resources are available to protect the environment, the willingness among citizens to pay for environmental improvement is also expected to rise with the increased income gained through the trade liberalisation process. The transfer of cleaner technology through international trade makes environment friendly production possible. Trade policy is also considered to be one type of ‘carrot’ or ‘stick’ that can

be used to encourage participation in international environmental agreements to deal with trans-boundary environmental problems.

On the other hand, trade may be responsible for environmental degradation in a number of ways. Increased economic activity requires more materials and energy, which is the growth effect of trade (Daly and Cobb, 1989). This results in faster depletion of natural resources and introduces new pollutants. International trade gives access to a larger market, which needs larger production units and thus needs more resources. For example, intensive agriculture requiring more fertilizer may be needed to meet increased demand on the international market. Trade may also bring in different production and consumption patterns as well as technology, which could be harmful to the environment, human health, and the long-run development prospects of the importing country. This might include trade of environmentally damaging goods, such as hazardous wastes, which are sometimes exported from developed countries to developing countries.

There is also a growing concern that environmental issues may create both direct and indirect opportunities to introduce new barriers to trade. A number of environmental policies are considered as trade barriers by many countries notwithstanding the fact that these policies are formulated to achieve sustainable development by maintaining a balance between economic growth and resource exploitation. For example, environmental measures such as standards, taxes, subsidies, charges and eco-labeling sometimes play a discriminatory role in terms of having an impact on international competitiveness. Domestic producers may be forced to adopt measures that impose additional costs on their foreign competitors due to environmentally motivated production process standards.

However, the relationship between trade and environment is not straightforward and the views on it are not unidirectional. The proponents of the view that free trade is beneficial to all countries argue that trade is not considered to be a direct cause of environmental problems and therefore, trade policies are not the best instruments to use in dealing with environmental problems (Anderson and Blackhurst, 1992; Anderson, 1992; GATT, 1992). On the other hand, social and environmental costs may outweigh the economic benefits gained through trade in which case trade liberalisation may not be desirable. In such circumstances a critical assessment of the impact of trade on the environment has been proposed (Daly, 1991). In developing

countries, increased growth due to trade has been accompanied by short and long-term environmental problems (Ropke, 1994). As opposed to these two extreme views, arguments have been made in favour of free trade with adequate environmental safeguards. How far trade in natural resources is a matter of concern depends on several circumstances, such as: (i) the balance between trade and the resource endowments of the individual countries, (ii) the extent to which revenues from exported resources are converted into other forms of capital, (iii) the extent to which trade takes place at international prices that reflect the true social costs of resource depletion in the exporting country. Trade restriction is not the appropriate policy even when trade results in environmental degradation in some sense. It has been suggested that trade accompanied by environmental policy is better than increased protection without appropriate environmental policies (Pearce and Warford, 1993; Markandya, 1994).

Ideally, trade and environment should be compatible, and ultimately trade, environment and sustainable development should join paths in one direction. Recognising the interface between trade and environment the World Trade Organisation (WTO) has given attention to the issue through various agreements most of which contain exceptions from the trade liberalisation rule in order to legitimise the efforts of its members to protect the environment (WTO, 2001).

Trade-environment issues as laid out in the work programme of the Doha Declaration are of critical importance to Bangladesh particularly in terms of market access opportunities for its exports to the global market as the economy of Bangladesh is being integrated into the global economy through various initiatives of trade liberalization. In fact for developing countries, and also for least developed countries (LDCs) like Bangladesh, the challenges are twofold: (i) how to get market access without degrading the environment, and (ii) how to protect the environment without adversely affecting economic growth and progress in the trade liberalisation process (Tussie, 2000). As the country is graduating towards trade expansion the obligations under the WTO rules are also becoming binding for Bangladesh.

Trade-environment issue has not acquired sufficient momentum in the WTO. No substantial agreement could be reached on a number of areas since there remains major disagreements on various issues among the members. There have been a series

of discussions on trade and environment in the regular as well as in the special sessions of the Committee on Trade and Environment (CTE) and in other relevant committees in the WTO. Report has been presented to the Cancun Ministerial held in September 2003 on the development on trade and environment and the Ministers reaffirmed their commitment to negotiations on trade and environment. How and when negotiations will take place, what shape will they take, who will be the gainers and losers will depend on the preparation and bargaining power of the participating countries.

In view of the fact that the trade-environment work programme of the Doha Declaration has acquired increasing importance in developed, developing and least-developed countries, the study of the relevant emerging issues in this area with respect to post-Doha developments is an appropriate and timely engagement. Taking note of the emerging importance of the trade and environment issues in the context of its inclusion in the Doha negotiating agenda the Centre for Policy Dialogue (CPD) undertook the present study which discusses three important issues of the Doha Declaration which appear to be the most important and relevant for Bangladesh. These are: Multilateral Environmental Agreements, Environmental Goods and Services, and Environmental Measures. The study not only provides a stocktaking of the post-Doha scenario, but also articulates the interests of Bangladesh in these areas in light of the current discussions in the WTO.

The paper is organised in the following manner. The introductory chapter of the paper is followed by four Chapters. Chapter A presents a discussion on the Multilateral Environmental Agreements and the WTO: Perspectives of Bangladesh, Chapter B on Liberalisation of Environmental Goods and Services: Issues for Bangladesh, and Chapter C discusses the Effect of Environmental Measures on Market Access: Implications for Bangladesh. Conclusions and policy recommendations are presented in Chapter D.

PART B

MULTILATERAL ENVIRONMENTAL AGREEMENTS AND THE WTO: BANGLADESH PERSPECTIVE

I. Introduction

The relationship between the existing WTO rules and specific trade obligations (STOs) set out in the multilateral environmental agreements (MEAs) described in paragraph 31(i) forms one of the three major components of the Doha Ministerial Declaration on trade and the environment. The negotiating mandate for the conduct of WTO negotiations on the relationship between WTO rules and MEA trade obligations contained in paragraph 31 of the Doha Declaration states the following:

“31. With a view to enhancing the mutual supportiveness of trade and environment, we agree to negotiations, without prejudging their outcome, on:

(i) the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs). The negotiations shall be limited in scope to the applicability of such existing WTO rules as among parties to the MEA in question. The negotiations shall not prejudice the WTO rights of any Member that is not a party to the MEA in question;”

This paper discusses the MEAs and the WTO in the light of the Doha Declarations and issues of interest for Bangladesh. Before going into the discussion on paragraph 31(i) a background of the emergence of the trade and environment issues in the negotiating agenda is discussed in Section II and III. A discussion on a few trade related MEAs is presented in Section IV. The post Doha developments in terms of position of countries on the issue and contributions made by countries on paragraph 31(i) are presented in Section V. Finally in Section VI issues of interest and perspective of Bangladesh is discussed.

II. Trade and Environment in the Negotiating Agenda

Environmental issues made their way onto the WTO negotiating agenda for the first time at the Doha Ministerial Meeting in November 2001 notwithstanding strong opposition from both developed and developing countries. To a large extent, this was the result of a sustained effort by various environmental lobbies, particularly those in the EU, supported by Japan, Norway and Switzerland. Developing countries were concerned that environmental measures may be used to restrict market access of their

products once this was on the negotiating table. Among developed countries, the USA and Canada had objected to the move to include environment on the agenda, as they were concerned that an environmental mandate would mean reduction of the huge subsidies these countries give to their agricultural sectors. They were also wary of eco-labeling through which their agricultural products might be restricted.

Against this backdrop of a somewhat unfavourable situation, the environmental agenda was incorporated into the Ministerial Declaration with a restricted mandate (details in Section III). However, developments at Doha are still considered to be a milestone due to the inclusion of a negotiating mandate with respect to an environmental issue in the Ministerial Declaration. Environmental concerns are reflected in paragraph 6 of the Preamble of the Doha Ministerial Declaration, which starts with the reaffirmation of commitments to the objective of sustainable development. It also stresses that the multilateral trading system and actions towards environmental protection and sustainable development “can and must be mutually supportive” (WT/MIN/(01)/DEC/W/1). Paragraph 6 of the Doha Declaration states that:

“We strongly reaffirm our commitment to the objective of sustainable development, as stated in the Preamble to the Marrakesh Agreement. We are convinced that the aims of upholding and safeguarding an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive. We take note of the efforts by Members to conduct national environmental assessments of trade policies on a voluntary basis. We recognize that under WTO rules no country should be prevented from taking measures for the protection of human, animal or plant life or health, or of the environment at the levels it considers appropriate, subject to the requirement that they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, and are otherwise in accordance with the provisions of the WTO Agreements. We welcome the WTO’s continued cooperation with UNEP and other inter-governmental environmental organizations. We encourage efforts to promote cooperation between the WTO and relevant international environmental and

developmental organizations, especially in the lead-up to the World Summit on Sustainable Development to be held in Johannesburg, South Africa, in September 2002” (WT/MIN/(01)/DEC/1).

The main text of the Doha work programme describes the negotiating and non-negotiating agenda in paragraphs 31, 32 and 33 while the section on the Organisation and Management of the work programme also recognises the importance of sustainable development in paragraph 51 of the Doha Declaration. Negotiations on items described in paragraph 31 are part of the “single undertaking” negotiating package and hence may be subject to trade-offs with other negotiating areas in the course of negotiations. Negotiations on paragraph 31 are to conclude on January 1, 2005 together with negotiations in the other areas. The non-negotiating agenda in paragraph 32 was to be examined before the Cancun Ministerial meeting in September 2003 to find out what future actions could be taken on these issues and whether they could be placed on the table for negotiations. A report on technical assistance (TA) and capacity building (CB) on trade and environment as described in paragraph 33 would be presented at the Cancun conference.

In view of the fact that the trade-environment work programme of the Doha Declaration is acquiring increasing importance to developed, developing and least-developed countries, the study of the relevant emerging issues in this area with respect to post-Doha developments is an appropriate and timely engagement. Taking such circumstances into account the present study provides a stocktaking of the post-Doha scenario, examining the relationship between MEAs and the WTO and articulating interests of Bangladesh. An overview of the emergence of trade and environment issues in the WTO and milestones in Ministerial Meetings are discussed as related issues of the paper.

III. Emergence of Environmental Issues in the WTO

At the time of the establishment of the General Agreement on Tariffs and Trade (GATT) in 1947, environment was not an international issue and concerns for the environment were less than it is now. So the only direct link between trade and environmental issues in the GATT is reflected in the clause of the general exceptions to free trade described in Article XX. This Article allows countries to enforce measures that restrict trade, provided these measures are required on environmental

grounds. Article XX(b) allows exceptions for measures “necessary to protect human, animal or plant life or health” while Article XX(g) specifies measures “relating to the conservation of exhaustive natural resources if such measures are made effective in conjunction with restriction on domestic production and consumption.” The legitimacy of the discussion of the environmental issues at the WTO is drawn from GATT Article XX.

However, the environmental issue had become the focus of attention in the international arena much before the establishment of the WTO in January 1995. The impact of environmental policies on trade and the impact of trade policies on the environment were recognised as early as in the 1970s. The *Stockholm Conference on Human Environment* in 1972 organised by the United Nations was a response to the emerging concerns as regards the impact of economic growth on social development as well as on the environment. The Stockholm Conference led to the establishment of the United Nations Environment Programme (UNEP). At the time of this Conference the Secretariat of the GATT prepared a study on the impact of environmental policies on international trade as part of its contribution to the conference which focused on the implications of environmental protection policies on international trade and reflected the concern among trade policy makers that such environmental policies could act as obstacles to trade. Later on, the GATT Group on Environmental Measures and International Trade (EMIT) was established in November 1971 with the responsibility of examining upon request, any specific matters relevant to trade policy aspects of the measures to control pollution and protect the human environment and reporting back to the GATT Council. The Group however, was not activated until 1991 since no requests had come forward for its activation. In 1987 the World Conference on Environment and Development (WCED) produced a report titled *Our Common Future* (WCED, 1987) popularly known as the Brundtland Commission’s report which articulated the concept of “Sustainable Development” as the basis for an integrated approach to economic policy. The Brundtland Commission’s report identified poverty as one of the most important causes of environmental degradation, and argued that greater economic growth, fuelled in part by increased international trade could generate the necessary resources to combat what the report calls “the pollution of poverty”. This was followed by further developments at the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit held in Rio de Janeiro, Brazil in 1992. The Earth Summit reiterated the

growing concerns regarding the environment and elaborated a programme of sustainable development known as Agenda 21. The programme of action states that:

“---- open, equitable, secure, non-discriminatory and predictable multilateral trading system that is consistent with the goals of sustainable development and leads to the optimal distribution of global production in accordance with comparative advantage is of benefit to all trading partners. Moreover, improved market access for developing countries’ exports in conjunction with sound macroeconomic and environmental policies would have a positive environmental impact and therefore make an important contribution towards sustainable development” (United Nations, 1992).

The World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa in 2002 which was a follow up of the Rio Summit reaffirmed sustainable development as a central element of the international agenda and gave new impetus on global action to fight poverty and protect the environment. The scope of sustainable development was broadened by linking poverty, the environment and the use of natural resources (United Nations, 2002).

Between 1971 and 1991, environmental policies started to have an increasing impact on trade and the effects of trade on the environment had also become more widespread as the flow of international trade had increased. Trade related environmental issues were taken up both in the Tokyo Round (1973-79) and in the Uruguay Round (1986-93) of trade negotiations. During the Tokyo Round, the Agreement on Technical Barriers to Trade (TBT) also known as the ‘Standards Code’ was negotiated and there was also a call for non-discrimination in the preparation, adoption and application of technical regulations and standards, and for their transparency. During the Uruguay Round modifications were made to the TBT and other environmental issues were addressed including the General Agreement on Trade in Services (GATS), the Agreement on Agriculture (AoA), the Agreement on Sanitary and Phyto-Sanitary Measures (SPS), the Agreement on Subsidies and Countervailing Measures (SCM) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). Between the Tokyo and the Uruguay Rounds a Working Group on the Export of Domestically Prohibited Goods (DPG) and Other Hazardous Substances was established in 1989 as an outcome of the concern expressed by developing countries that products were exported to them despite being prohibited

domestically in developed countries on the grounds of harm to human, animal, plant life or health or the environment. The next step was a follow up of the decision of the Ministerial Meeting of GATT Contracting Parties in 1982 that the GATT should examine the measures needed to bring under control the export of those harmful products.

At the Ministerial Meeting of the Uruguay Round in Brussels in 1990 it was decided that the EMIT Group should be reactivated by GATT and focus on three areas: (i) possible effects of environmental measures such as eco-labeling; (ii) the relationship between the rules of the multilateral trading system and the trade provisions contained in MEAs, and (iii) transparency of national environmental measures that have an impact on trade.

A Ministerial Decision on Trade and Environment was adopted in April 1994 in Marrakesh, Morocco calling for the establishment of the Committee on Trade and Environment (CTE), which replaced the EMIT Group when the Uruguay Round of trade negotiations came to an end. In the Preamble to the Marrakesh Agreement Establishing the WTO, reference was made to the importance of working towards sustainable development. The WTO members recognise:

“that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development” (WTO, 1994).

The Marrakesh Ministerial Decision on Trade and Environment states that mandates of the CTE are: (i) to identify the relationship between trade measures and environmental measures in order to promote sustainable development; and (ii) to make appropriate recommendations on whether any modifications of the provisions of the multilateral trading system are required, compatible with open, equitable and non-

discriminatory nature of the system. The Marrakesh Declaration lays out a work programme consisting of ten items as shown in Table 1.

Table 1: Work Programme of the Committee on Trade and Environment

1. The relationship between trade rules and trade measures used for environmental purposes, including those in MEAs;
2. The relationship between trade rules and environmental policies with trade impacts;
3. (a) The relationship between trade rules and environmental charges and taxes (b) The relationship between trade rules and environmental requirements for products, including packaging, labeling and recycling standards and regulations;
4. The provisions of the multilateral trading system with respect to the transparency of trade measures used for environmental purposes;
5. The relationship between the dispute settlement mechanisms of the WTO and the trade measures contained in the MEAs;
6. The effects of environmental measures on market access, especially in relation to developing countries, in particular to the least developed among them, and the environmental benefits of removing trade restrictions and distortions;
7. The issue of exports of domestically prohibited goods (DPGs);
8. The relationship between environment and the Agreement on Trade-Related Intellectual Property Rights (TRIPS);
9. The relationship between the environment and the Decision on Trade in Services;
10. The relationship between the WTO and other organisations, both intergovernmental and non-governmental organisations (NGOs).

All WTO members are part of the CTE while a number of intergovernmental organisations have observer status. Regular sessions of the CTE are convened from time to time in order to deal with trade and environmental issues. The CTE submits report on the progress of all items of its work programme to the Ministerial Conferences. After the first Ministerial Conference held in Singapore in 1996 the CTE had narrowed down the main items of its work programme into two clusters; (i) those items related to the theme of market access (items 2, 3, 4 and 6 in Table 1), and (ii) those on the linkages between international environmental management and the trading system (items 1, 5, 7 and 8 in Table 1).

3.1 Milestones: Outcome of the Ministerial Meetings

Singapore Ministerial

The Declaration of the First Ministerial held in Singapore during 9 –13 December 1996 said that the CTE would continue to examine the scope of the complementarities between trade liberalisation, economic development and environmental protection. It recognised that full implementation of the WTO Agreements would make an important contribution to achieving the objective of sustainable development. Taking note of the range and complexity of issues covered by the CTE's work programme it was felt that further work needed to be undertaken on all items of its agenda. The

Ministers agreed to build on the work already accomplished and directed the CTE to carry out its work and report to the General Council.

Geneva Ministerial

The Second WTO Ministerial held in Geneva on May 18 and 20, 1998 did not have any specific agenda on trade and the environment apart from the reaffirmation of the commitments and assessments made in Singapore Ministerial meeting.

Seattle Ministerial

At the Third Ministerial Conference held from November 30 to December 3, 1999 in Seattle, a number of proposals on trade and the environment were tabled by many countries as it was expected that the Seattle Conference would launch a new round of negotiations on trade like the Tokyo Round and the Uruguay Round. The proposals submitted were on various environment-related issues such as MEAs, eco-labeling, removal of environmentally harmful trade restrictions and distortions in certain sectors. The inclusion of the trade-environment issue in the negotiating round was opposed by many developing countries even though the proposals were similar to those made at the beginning of discussions on trade and the environment in the WTO. The reason for the objection was that there were two new issues, namely the precautionary principle and biotechnology, were on the table for discussion with a number of proposals already made on biotechnology. The issues were suppressed for the time being as the Seattle Ministerial failed to launch a new round of trade negotiations

Doha Ministerial

The Fourth Ministerial Conference held in Doha from 9 –14 November 2001 was the latest development which lays out a work programme for negotiating trade and environmental issues. The Doha Ministerial Declaration strongly reaffirmed the commitment to the objective of sustainable development, as stated in the Marrakesh Agreement. The following Section presents the Doha agenda on trade and the environment in detail.

Cancun Ministerial

The Cancun Ministerial took note of the progress made by the Special Session of the Committee on Trade and Environment in developing a common understanding of the concepts contained in its mandate in paragraph 31 of the Doha Ministerial

Declaration. The Ministers reaffirmed their commitment to these negotiations. In the Second Revision of the Draft Cancun Ministerial Text circulated on 13 September 2003 it was mentioned that the Ministers agree that the Special Session of the Committee on Trade and Environment continues to invite to its meetings, in accordance with its current practice, the secretaries of the United Nations Environment Programme (UNEP) and the United Nations Conference on Trade and Development (UNCTAD). This invitation shall be for the period of the negotiations. It shall be without prejudice to any additional invitations that the Special Session of the Committee on Trade and Environment extends in future, and to paragraph 31 negotiations (JOB (03)/150/Rev2).

3.2 Doha Development Agenda on Trade and the Environment

Preamble

As mentioned in Section 1.3 of this paper, paragraph 6 of the Preamble of the Doha Declaration fully appreciates the importance of achieving sustainable development through an open and non-discriminatory multilateral trading system.

Negotiating Mandate

At the Doha Ministerial WTO members agreed to negotiations on trade and the environment, as part of the single undertaking, in three areas as described in paragraph 31 of the Doha mandate. These are:

- (i) The relationship between WTO rules and specific trade obligations set out in MEAs;
- (ii) Procedures for information exchange between MEA secretariats and relevant WTO committees, including criteria for granting the observer status;
- (iii) The reduction or elimination of tariff and non-tariff barriers to environmental goods and services.

The members also agreed to conduct negotiations aimed at clarifying and improving WTO disciplines and procedures on fisheries subsidies as part of negotiations on WTO Rules taking into account the importance of this sector for the developing countries (paragraph 28 referred in paragraph 31 of the Doha Declaration).

Non-Negotiating Mandate

The CTE has been asked to work on other issues such as market access, the TRIPS agreement and labeling, and to give a report on future action, including the desirability of negotiations. In this regard paragraph 32 requires attention to be given to:

- (i) The effect of environmental measures on market access, especially in relation to developing countries, in particular the least-developed countries among them, and those situations in which the elimination or reduction of trade restrictions and distortions would benefit trade, the environment and development;
- (ii) The relevant provisions of the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS); and
- (iii) Labeling requirements for environmental purposes.

The Declaration under paragraph 32 also says that the outcome of the work under paragraph 31(i) and 31(ii) shall be compatible with the open and non-discriminatory nature of the multilateral trading system, shall not add to or diminish the rights and obligations of the Members under existing WTO agreements, in particular the Agreement on the Application of Sanitary and Phytosanitary Measures, nor alter the balance of these rights and obligations, and will take into account the needs of developing and least developed countries.

Technical Assistance and Capacity Building

The Doha meeting also recognised the importance of technical assistance and capacity building to the developing and least developed countries in the field of trade and the environment. Paragraph 33 of the Doha Declaration says that a report should be prepared on the related activities for submission during the Fifth Ministerial Meeting. In addition to this it was also encouraged that expertise and experience be shared with members wishing to perform environmental reviews at the national level.

Organisation and Management of the Work Programme

Paragraph 51 of the Doha Declaration says that the Committee on Trade and Development (CTD) and the CTE shall, within their respective mandates, each act as a forum to identify and debate development and environmental aspects of the

negotiations, in order to achieve the objective of having sustainable development appropriately reflected.

IV. Trade Related Multilateral Environmental Agreements

The WTO trading system deals with environmental issues through MEAs which include provisions that can affect trade of certain products and allow some countries to restrict trade in certain circumstances. At present there are about 200 international environmental agreements outside the WTO out of which 20 are directly related to trade. The Convention on International Trade in Endangered Species (CITES), the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) and the Convention on the Control of Transboundary Movement of Hazardous Wastes (Basel Convention), Cartagena Protocol on Biosafety to the Convention on Biological Diversity (Biosafety Protocol) are among those. STOs in these MEAs are mentioned in Table 2 below. The CITES seeks to control trade in endangered species and their parts as well as products made from such species; the Montreal Protocol controls several classes of industrial chemicals known to harm the stratospheric ozone layer which has led to a ban on the production and use of several chemicals; the Basel Convention controls movements of hazardous wastes which has resulted in amendments banning the export of hazardous wastes.

Table 2 : Selected Trade Related MEAs

1. The Convention on International Trade in Endangered Species (CITES), 1975;
2. The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol), 1987;
3. The Convention on the Control of Transboundary Movement of Hazardous Wastes (Basel Convention), 1992;
4. The Convention on Biological Diversity, 1993;
5. The United Nations Framework Convention on Climate Change (UNFCCC), 1994;
6. The Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 1998;
7. Cartagena Protocol on Biosafety, 2000;
8. The Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR);
9. The International Tropical Timber Organization (ITTO);
10. The International Forum on Forests (IFF);
11. The Stockholm Convention on Persistent Organic Pollutants (POPs);
12. The International Commission for the Conservation of Atlantic Tunas (ICCAT);
13. The United Nations Fish Stocks Agreements (UN Fish Stocks);
14. The United Nations Convention on the Law of Sea (UNCLOS);
15. The London Guidelines on the Exchange of Information on Banned or Severely Restricted Chemicals.

V. Post-Doha Scenario

5.1 Developments Since Doha

At the first meeting of the Trade Negotiating Committee (TNC) of the WTO in February 2002 it was agreed that negotiations on trade and the environment would take place in the Special Session of the CTE (CTESS) in the WTO whose role had so far been restricted to only studying the relationship between trade and the environment, and making recommendations. At an informal meeting of the CTE on 1 March 2002 members agreed that meetings of the CTES would be held back to back with regular CTE meetings. Regular CTE meetings would focus on items in paragraph 32 and 33 and the CTES would focus on the negotiating agenda in paragraph 31. Observers would not be allowed to attend the CTES as these would be the negotiating meetings. There was also a general understanding that negotiations on environmental goods would be conducted in the Negotiating Group on Market Access (NGMA) while negotiations on environmental services would be conducted in the Council for Trade in Services (CTS).

Table 3: Specific Trade Obligations Among Parties in the Important MEAs

<i>Name of MEAs</i>	<i>Specific Trade Obligations</i>
<i>Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</i> – In force	<p>Art. II (4): - prohibits trade in specimens of species listed in Appendices I, II, and III except in accordance with the Convention</p> <p>Art. III: - regulates all trade in specimens of species listed in Appendix I</p> <p>Arts. IV (1), (2), (3), (4), (5), and (6): - regulate all trade in specimens of species listed in Appendix II</p> <p>Art. V: - regulates all trade in specimens of species listed in Appendix III</p> <p>Arts. VI (1), (2), (3), (4), (5) and (6): - govern permits and certificates</p> <p>Arts. VIII (1)(a), (1)(b), (3), (4), (6) and (7): - concern measures to be taken by Parties to enforce the Convention to prohibit trade in specimens in violation thereof</p> <p>Art. IX: - requires the designation of Management and Scientific Authorities</p>
<i>The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol)</i> – In force <i>Montreal Amendment (adding Art. 4A)</i> - In force	<p>Article 4A(1): - governs the control of trade with Parties</p>
<i>The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention)</i> - In force	<p>Arts. 3(1) and 3(2): - requires reporting on national definitions of hazardous wastes and requirements concerning transboundary movement</p> <p>Arts. 4(1), 4(2)(e), 4(2)(f), 4(2)(g), 4(6), 4(7), 4(8), 4(9) and 4(10): - contain general obligations regarding the transboundary movement of hazardous waste</p> <p>Art. 5(1): - requires the designation of a competent authority and focal point</p> <p>Arts. 6(1), 6(2), 6(3), 6(4), 6(5), 6(9) and 6(10): - which govern the transboundary movement of hazardous waste</p> <p>Art. 8: - governs the duty to reimport</p> <p>Art. 9(2): - governs the repatriation of illegal waste</p> <p>Arts. 13(2), 13(3)(a) and 13(4): - govern the transmission of information</p>

<i>Name of MEAs</i>	<i>Specific Trade Obligations</i>
<i>Cartagena Protocol on Biosafety to the Convention on Biological Diversity (Biosafety Protocol)</i> - Not yet in force	Arts. 7(1) and 7(3): - govern the application of the advance informed agreement procedure Art. 8: - governs notification Arts. 9(1) and 9(2): - govern acknowledgement of receipt of notification Arts. 10(1), 10(2), 10(3) and 10(4): - govern the decision procedure Art. 18 (2): - governs documentation accompanying living modified organisms Art. 19: - requires the designation of competent national authorities and focal points
<i>The Rotterdam Convention on the Prior Informed Consent Procedure for certain Hazardous Chemicals and Pesticides in International Trade (PIC)</i> – Not yet in force	Arts. 5(1) and 5(2): - govern procedures for banned or severely restricted chemicals Arts. 10(2), 10(4), 10(5), 10(7), 10(8) and 10(9): - govern obligations in relation to imports of Annex III chemicals Arts. 11: - governs obligations in relation to exports of Annex III chemicals Arts. 12(1), 12(2), 12(3) and 12(4): - govern export notification Arts. 13(2) and 13(4): - govern information to accompany exported chemicals
<i>Stockholm Convention on Persistent Organic Pollutants (POPs)</i> – Not yet in force	Arts. 3(1)(a)(ii), 3(2)(a), 3(2)(b)(i), 3(2)(b)(ii), and 3(2)(c): - govern obligations concerning the export and import of listed chemicals (as among Parties) Annex A, Part II, Paragraph (c) (as among Parties)

Source: WT/CTE/W/160/Rev.1, 2001.

Regarding phases of work it was suggested by some members that there should be three phases for the negotiations: (a) a *study phase* - in which members could submit and debate proposals; (b) the *proposal - negotiation phase* - in which members could negotiate the final outcome; and (c) a *combined study - proposal phase* - to be followed by negotiations. The suggestion on the phases of work was opposed by the EU, who said that there should be a flexible structure of negotiations and that members should be allowed to submit proposals at any stage in the negotiating process. Other developed countries such as the USA, Norway, Canada, Japan and Australia were also in favour of a flexible structure for the work programme of the CTESS. Other members said that a study phase was not needed since paragraph 31 of the Doha mandate had already been studied in the regular CTE while some others wanted clearly defined phases for the submission of negotiating proposals. Though there was no agreement as to how the procedural issue would be resolved it was understood by the members that as the work of the special sessions proceeded, the phases of work would occur naturally.

Seven meetings of the CTESS were held between March 2002 and July 2003. These meetings concentrated on procedural issues and paragraph 31. The relationship between WTO rules and STOs in the MEAs received particular attention. During meetings of the CTESS member countries expressed their opinion and concerns on a range of issues in connection with the Doha agenda on trade and the environment. The fourth meeting of the CTESS held on 12 November 2002 was devoted

exclusively to ‘information exchange’ and was attended by the high level representatives of a number of MEAs and also by the UNEP. Regular meetings of the CTE focused on issues referred to in paragraphs 32 and 33 of the Doha Declaration. During the meeting held on 14 February 2003, members of the regular CTE decided to compile factual reports for the Cancun Ministerial on discussions that had taken place on those paragraphs to date. Meetings of the regular CTE are being chaired by Ambassador Oguz Demiralp of Turkey, and the meetings of the CTESS are chaired by Ambassador Yolande Biké of Gabon.

Contributions have been made by many countries including Japan, the USA, Korea, Switzerland, separate territories of Taiwan along with Penghu, Kinmen and Matsu, Australia, Argentina, Hong Kong (China), Malaysia, India and Canada to CTESS on paragraph 31(i). Most of the contributions were on paragraph 31(i) as it appeared to be the most important issue to be resolved in order to make any progress on negotiations.

5.2 Current State of Play and Position of Countries

In the first meeting of the CTESS the need for developing a common understanding of the negotiating mandate was felt very strongly. The EU had circulated a paper (TN/TE/W/1) on the relationship between the WTO and MEAs which urged for clarification of the WTO agreements on how they relate to MEAs, and defined a number of terms used in paragraph 31(i) such as, ‘specific trade obligations’ in MEAs and the phrase ‘among partners’. Most of the members expressed concerns that the EU’s proposal was beyond the scope of mandated negotiations as it was talking of both party and non-party issues whereas the Doha mandate limits the applicability of talks to parties of MEAs only. The case of party versus non-party MEA conflict is excluded since the USA either has not signed or is not a party to many MEAs. Due to concerns about non-membership in many MEAs such as the Kyoto Protocol to the UN Framework Convention on Climate Change and to the Biosafety Protocol to the UN Convention on Biological Diversity, the USA successfully resisted negotiations on MEAs at Doha that could have led to changes in WTO rights and obligations of non-parties to MEAs.

Though it is unlikely that countries behaving rationally will bring conflicts to the WTO dispute settlement body (DSB), the possibility of doing so cannot be ruled out. The only available example of an MEA-WTO conflict so far is that of Chile versus

Spain when a dispute over the capture of swordfish was imminent. Chile declined port facilities to Spanish ships fishing swordfish. The UN Law of Sea allows for protection of swordfish, favouring the position of Chile. However, Spain brought the issue to the WTO and a panel was formed to look into the issue. Finally, proceedings were suspended and the dispute was settled amicably. Recently, the settlement has begun to fall apart and the dispute may be brought to the WTO once again.

Some participants have argued that the burden of proof in environment-related disputes should shift to MEAs. There are also questions as to what exactly is covered by the Doha mandate. Some participants also cautioned against the WTO resolving paragraph 31(i) by itself without consulting the MEA secretariats. On the basis of the agreement in the fourth meeting of the CTESS in November 2002, members began to examine STOs in certain MEAs.

There were discussions on how to examine the relationship between the WTO and MEAs, and whether members should adopt the 'top-down' approach favoured by the EU and Japan (TN/TE/W/10), or the 'bottom up' approach advocated by Australia (TN/TE/W/7).

Japan's proposal was to identify and categorise STOs under MEAs according to their specificity. The members of the WTO must make it clear when it is permissible or not for governments to impose trade-restrictive measures intended to meet their obligations under MEAs. The Japanese proposal was supported by the EU, Norway and Switzerland. The EU said that concerning paragraph 31(i) the WTO should first discuss principles and parameters, and then look at applying these to specific trade measures in MEAs.

Australia suggested three phases for negotiations: (i) identify the most specific trade obligations in the relevant MEAs to be addressed, and the appropriate WTO rules; (ii) discuss these provisions with the relevant MEA secretariats; and (iii) move to a negotiating phase. The Australian proposal was supported by many including the USA, Brazil, the Philippines, Singapore, Thailand, Indonesia, Malaysia, Mexico, Chile, New Zealand, Canada, Hong Kong, Peru, Cuba, Egypt, Kenya, Uruguay, Bolivia, Colombia, China, Pakistan, India, Korea and Taiwan, though some of the members argued that it should be combined with an examination of the concepts contained in the mandate. In their proposal, the separate territories of Taiwan, Penghu,

Kinmen and Matsu (TN/TE/W/11) supported the Australian proposal. A number of countries said that they needed more time to consider the Australian proposal. Argentina advocated for a study phase to define the negotiating mandate more precisely. As opposed to the EU's support for broad interpretation of paragraph 31(i), Argentina (TN/TE/W/2) suggested that the language "specific trade obligations" should exclude all MEA non-mandatory trade measures, non-trade obligations and non-specific trade obligations. Switzerland also submitted a paper that said that there was a need to define the different categories of STOs set out in MEAs which would require a detailed analysis of these categories to distinguish between STOs and non STOs. The USA, Mexico and Bolivia resisted the idea of establishing a definition to determine which MEAs should be addressed. The EU, Chile and Japan supported the inclusion of regional MEAs in the discussion. The EU and Japan also said that these should not be limited to those MEAs that have entered into force.

The USA and India suggested that the definition of an STO in an MEA should be limited to one that is mandatory and specific in character. In this criteria they identified six MEAs: (i) the United Nations Framework Convention on Climate Change (UNFCCC); (ii) the Convention on Biological Diversity (CBD); (iii) the Cartagena Protocol on Biosafety; (iv) the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Chemicals Persistent Organic Pollutants (POPs); (v) the International Tropical Timber Organization (ITTO); and (vi) the United Nations Forum on Forests (UNFF). The first three MEAs have already come into force while the last three have not. The USA, supported by Australia, the Association of South East Asian Nations (ASEAN) and Argentina, suggested that the special session of the CTE should start to build a factual foundation that can permit the CTE to examine the relationship between the MEAs and the WTO (TN/TE/W/20). Canada submitted a paper (TN/TE/W/22) which was also in support of examining the above six MEAs. But the paper indicated that Canada did not consider the UNFCCC or its Kyoto Protocol to contain any STOs. Table 4 shows the contributions made by various countries on paragraph 31(i).

The WTO Secretariat has identified 14 MEAs with trade-related measures. These are (1) International Plant Protection Convention (IPPC); (2) International Conventions for the Conservation of Atlantic Tunas; (3) Convention on International Trade in

Endangered Species of Wild Fauna and Flora; (4) Conventions on the Conservation of Antarctic Marine Living Resources; (5) Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol); (6) Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal; (7) Convention on Biological Diversity; (8) United Nations Framework Convention on Climate Change; (9) Kyoto Protocol; (10) Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; (11) International Tropical Timber Organization (ITTO); (12) United Nations Fish Stocks Agreements; (13) Convention for the Conservation of Antarctic Marine Living Resources; (14) Stockholm Convention on Persistent Organic Pollutants (POPs).

VI. Perspectives of Bangladesh

Bangladesh is a signatory to more than 45 MEAs. This implies that there is a need to implement commitments as well as to make appropriate use of facilitating measures under such agreements. Trade measures in MEAs can be of various types including reporting requirements on the extent of trade of a particular product; labeling or other identification requirements; requirements related to notification and consent procedures; targeted or general export and import bans; market transformation measures such as taxes, charges and other fiscal measures and non-fiscal measures such as government procurement. Bangladesh needs to find out which measures are affecting its trade performance.

The effectiveness of trade measures in MEAs depends on a clear definition of trade measures, their objectives and uses. Bangladesh should carefully analyse the environmental and developmental implications of proposed STOs in light of their environmental absorptive capacities, developmental priorities and capacity building needs. Bangladesh should insist on clear definitions of STOs and should be vigilant against any measure which may act as barriers to trade. It should urge upon the fact that trade related measures should be used only when they are the most and only effective way to achieve MEA mandated objectives.

Table 4: Submissions/Contributions on Trade-Environment Issues Since Doha

Country//Document/Date/ Committee	Submissions/Contributions
PARAGRAPH 31(i) – RELATIONSHIP BETWEEN MEA AND WTO	
Argentina TN/TE/W/2 23/5/2002; CTESS	Argued for a narrow interpretation of the Doha WTO-MEA language, advocating a study phase to define the negotiation mandate properly.
Australia TN/TE/W/7 7/6/2002; CTESS	Suggested 3 phases of negotiations: identification of the most relevant MEAs with specific trade obligations, an examination phase, and action, if necessary
European Union TN/TE/W/1 21/3/2002; CTESS	Sought further constructive dialogue among WTO members on the relationship between WTO rules and MEAs and the extent to which STOs should be considered to be automatically inconformity with WTO
Japan TN/TE/W/10 3/10/2002; CTESS	Presented the idea on STOs – those which are highly specified in MEAs should be deemed to be considered with WTO rules while other relevant measures specified in MEAs should be presumed to be WTO consistent on condition that those measures meet certain substantial requirements
New Zealand TN/TE/W/12 3/10/2002; CTESS	Submitted paper compiling the existing information on trade provisions in the Basel Convention, the Montreal Protocol and CITES, as well as the existing information regarding WTO rules that have been suggested as being relevant to these agreements
Republic of Korea TN/TE/W/13 8/10/2002; CTESS	Specific Trade Obligations (STOs) – Carried out an exercise of identifying STOs in some of the MEAs
Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu TN/TE/W/11 3/10/2002; CTESS	Supported 3 phased approach proposed by Australia. Clarified their position on STOs in MEAs and disputes between WTO member versus party and WTO member versus non-party to the MEAs.
Switzerland TN/TE/W/4 6/6/2002; CTESS	Switzerland said that there was a need to define the different categories of specific trade obligations set out in MEAs. This would require a detailed analysis of these categories to establish the distinction between specific trade obligations and non-specific trade obligations
United States TN/TE/W/20 10/2/2003; CTESS	Identified examples of STOs in six MEAs: CITES, the Montreal Protocol, Basel Convention, Cartagena Protocol on Biosafety, PoPs, PIC
Switzerland TN/TE/W/21 10/2/2003; CTESS	Categorized two broad STOs (i) trade measure explicitly provided for and mandatory under MEAs, (ii) other measures that are appropriate and necessary to achieve an MEA objective
Canada TN/TE/W/22 10/2/2003; CTESS	Analysed some of the factors relevant to the concept of STOs
India TN/TE/W/23 20/2/2003;CTESS	Discussed STOs in six MEAs: CITES, the Montreal Protocol, Basel Convention, Cartagena Protocol on Biosafety, PoPs, PIC
Hong Kong, China TN/TE/W/24 20/2/2003; CTESS	Suggested that a sequential examination of MEAs is prudent and would help thrash out all the implications of the STOs therein through sharing of actual implementation experience
Norway TN/TE/W/25 20/2/2003; CTESS	Provided definition of ‘STOs’ and ‘Among Parties’. Expressed the idea of mutual supportiveness between relevant WTO rules and STOs in MEAs, and there should not be any hierarchy between them
Japan TN/TE/W/26 25/4/2003; CTESS	Picked up provisions from six MEAs for members to discuss STOs: CITES, the Montreal Protocol, Basel Convention, Cartagena Protocol on Biosafety, PoPs, PIC
Hong Kong, China TN/TE/W/28 30/4/2003; CTESS	Examined relevant provisions in the CITES in the light of their own implementation experience. A possible way forward is to screen trade obligations in different MEAs with a view to considering whether they are deemed as STOs
Malaysia TN/TE/W/29 30/4/2003; CTESS	Shares a number of views expressed in the Argentine and the Indian paper on the elements of an MEA. Attempts to identify STOs in three MEAs that are in force and contain the elements of an MEA thereof – CITES, Basel Convention and the Montreal Protocol
European Union TN/TE/W/31 14/5/2003; CTESS	Discussed about decisions of Conferences of Parties (COP). All COP decisions that are legally binding should be covered by negotiations if and to the extent they confirm obligations within the definition of an STO
Switzerland TN/TE/W/32 13/5/2003; CTESS	Discussed STOs in MEAs giving examples of POPs and Basel Convention

Bangladesh should not agree to any new obligations unless they are clear and have a positive impact on sustainable development. In countries like Bangladesh weak institutional, technical and managerial capacities lead to non-compliance which calls for supportive measures linked to every trade measures. Therefore, Bangladesh should emphasise on the flexibility of measures in MEAs and on the provision of supportive measures in the form of financial and technical support, training and technology transfer to oblige to trade measures. Both implementation and economic adjustment costs can also be mitigated through such supportive measures. Technical assistance and capacity building are required to meet up the incremental costs in achieving international environmental goals set by MEAs. Similar to Multilateral Fund of the Montreal Protocol implementation related support is needed for other MEAs. The clause of reciprocity included in negotiations of MEAs which is about making the implementation of agreed obligations by developing countries dependent upon the effective implementation by developed countries of the supportive measures. Bangladesh should insist that such reciprocity is followed strictly in all possible cases. Though strict reciprocity was built in to three MEAs such as UNFCCC, the Montreal Protocol and CBD, only the Montreal Protocol is implementing it. Bangladesh should be aware of its own needs as regards building capacities to negotiate MEAs. Policy coordination between the Ministry of Commerce and the Ministry of Environment and Forest is essential to avoid any potential conflict between trade measures in MEAs and WTO rules.

PART C

LIBERALISATION OF ENVIRONMENTAL GOODS AND SERVICES: ISSUES FOR BANGLADESH

VII. Introduction

Paragraph 31 (iii) of the Doha Ministerial Declaration mandated negotiations on “*the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services*” as part of the single undertaking (WT/MIN/(01)/DEC/W/1, 2001). However, environmental goods and services were not defined in the Doha declaration. As a result various definitions from various perspectives have emerged in the course of negotiations since Doha, making it one of the highly debated issues. The members of the WTO have recognised that a clear definition of environmental goods and services is a key point in the process of developing relevant negotiating modalities. A number of participants referred to the work that had been done by the Organisation for Economic Cooperation and Development (OECD) and the Asia Pacific Economic Cooperation (APEC) on environmental goods. The Committee on Trade and Environment of the WTO used the OECD and APEC document as the basis for defining environmental goods referred to in the Doha Declaration (TN/TE/W/18).

VIII. What Are Environmental Goods and Services?

An environmental good can be understood as equipment, material or technology used to address a particular environmental problem or as a product that is itself “environmentally preferable” to other similar products because of its relatively benign impact on the environment. Environmental services have been defined as: (a) services provided by ecosystems (for example, carbon sequestration); or (b) human activities to address particular environmental problems (for example, wastewater management) (UNCTAD, 2003).

In view of the expected role in protecting the environment and boosting the international trade, environmental goods have become the part of the trade liberalising initiative in the WTO, though there is no clear definition and classification of environmental goods. It can be narrowed down to goods whose use results in a beneficial environmental impact, such as catalytic converter for automobile exhausts. In this definition, environmental goods are actually the capital goods or technologies which are required for ‘end-of-the pipe’ pollution abatement. A broader definition includes the environmental characteristic of the goods themselves or their production

processes. This means that goods which have relatively less negative impact on the environment at the consumption or disposal stage and goods which are produced in an environmentally friendly manner can be categorised as environmental goods. Environmental goods are also defined as those which have inherently beneficial environmental aspects such as biodegradability.

The OECD and the APEC identified the scope of environmental goods and have developed two separate lists of environmental products, one from each group. In 1992, the OECD started to identify the environmental goods and services as part of the work on the role of environmental policy and industrial competitiveness. There have been a number of subsequent efforts to expand and deepen the analysis with more data on production, employment, trade, investment, and research and development of environmental goods and services industry in order to develop a more comprehensive list. In 1995 the OECD/Eurostat (the Statistical Office of the European Community) Informal Working Group had come up with the following definition which has captured the vital aspects of environmental goods and services and has been widely used:

“The environmental goods and services industry consists of activities which produce goods and services to measure, prevent, limit, minimise or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems. This includes cleaner technologies, products and services that reduce environmental risk and minimise pollution and resource use.” (OECD/Eurostat 1999, p 9).

The OECD classification of environmental goods has also been used by a number of countries including Canada, the EU, France and the USA. This list includes three broad groups under which there are categories and sub-categories of environmental goods. A total of 164 environmental products are listed under the sub-categories.

While the OECD list has been developed as part of an analytical exercise to define the conceptual scope of the environmental goods and service sector, the APEC list resulted from policy discussions directed toward anticipated changes in tariffs and was the direct result of negotiated offers in the context of a trade-liberalisation initiative. The APEC process of listing environmental goods started in 1995 in an attempt to identify industrial sectors in which liberalisation could have a positive

impact on trade, investment and economic growth in the APEC economies and the region. As a result of the directives by the APEC Trade Ministers to identify possible sectors for early voluntary liberalisation, countries made proposals which also included environmental goods and services. Initially, Canada, Japan, Chinese Taipei and the US proposed environmental goods and services to be included as a distinct category. The APEC list included 109 items within 10 broad categories. A comparison of the detailed lists shows that the two lists do not overlap much at the level of six-digit HS (Harmonised Commodity Description and Coding System) codes, and less than 30 percent of the goods in the combined list are common to both lists, and about half of the goods on either list can be found on the other. (For details see OECD, 2003). However, the two exercises were interlinked and at the broader level, the two lists of environmental goods and services are quite similar (OECD, 2003). In Table 5 broad categories of both the OECD and the APEC list of environmental goods are presented.

Apart from the OECD and the APEC lists, Japan submitted a list of environmental goods as part of a broader proposal on market access for non-agricultural products to the NGMA as well as to the CTESS. On its list, Japan included 166 items incorporating many goods from both the OECD and the APEC (TN/TE/W/17; TN/MA/W/15) lists. It includes additional energy-efficient consumer products such as microwave ovens, refrigerators and video projectors, as well as other less polluting and more resource efficient goods.

In the Services Sectoral Classification list of GATS environmental services are included as one of the 12 sectors (MTN.GNS/W/120). According to GATS and in accordance with the United Nations Central Product Classification (CPC), environmental services are classified into four groups: (a) sewage, (b) refuse disposal, (c) sanitation, and (d) other (cleaning of exhaust gases, noise abatement, nature and landscape protection services and other environmental services). The OECD argues that the GATS classification is narrow because (i) it is not clearly organised according to the provision of services for specific environmental media (i.e. air, water, soil, noise), (ii) it focuses on “end-of-pipe” approaches with little coverage of pollution prevention and sustainable resource management services, (iii) it covers services provided in the operation of facilities, plant and equipment, but not the design, engineering, research and development (R & D), and consultancy services necessary

for building and upgrading them, (iv) it focuses on services supplied to the general community and overlooks those supplied directly to the industry (OECD, 2001).

Table 5: Broad Category of Environmental Goods

<i>OECD category</i>	<i>APEC category</i>
<p>A. POLLUTION MANAGEMENT</p> <ol style="list-style-type: none"> 1. Air pollution control 2. Wastewater management 3. Solid waste management 4. Remediation and cleanup 5. Noise and vibration abatement 6. Environmental monitoring, analysis and assessment <p>B. CLEANER TECHNOLOGIES AND PRODUCTS</p> <ol style="list-style-type: none"> 1. Cleaner/resource efficient technologies and processes 2. Cleaner/resource efficient products <p>C. RESOURCES MANAGEMENT GROUP</p> <ol style="list-style-type: none"> 1. Indoor air pollution 2. Water supply 3. Recycle materials 4. Renewable energy plant 5. Heat/energy savings and management 6. Sustainable agriculture and fisheries 7. Sustainable forestry 8. Natural risk management 9. Eco-tourism 10. Other 	<ol style="list-style-type: none"> 1. Air pollution control 2. Water pollution control 3. Solid waste management 4. Remediation/clean-up of soil 5. Noise/vibration abatement 6. Monitoring, analysis and assessment 7. Potable water treatment 8. Recycling systems 9. Renewable energy plant 10. Heat and energy management

Source: WT/CTE/W/228; TN/TE/W/33.

IX. Benefits of Liberalisation of Environmental Goods and Services

Economic Benefits: Reduction or elimination of tariff barriers (TBs) and non-tariff barriers (NTBs) to trade in Environmental Goods and Services (EGS) will bring economic benefits through access to environmental technologies at lower costs. The utilisation of environmental technologies at a larger scale will in turn stimulate the development and application of innovative solutions to environmental issues. Both developed and developing countries have comparative advantage in the production of EGS that can benefit from greater market access. This will help governments to expand their capital investment further. During 1996-2001 developing countries as a group were net exporters for 14 of the 128 environmental goods on the OECD list. China, Mexico, Republic of Korea, Indonesia, Thailand and Chile are the significant suppliers of florescent lamps in the global market; Mexico, Saudi Arabia, Republic of Korea and Brazil are suppliers of multilayered insulating glass windows. On the other

hand, Brazil, Jamaica, Argentina, Bolivia, Costa Rica, El Salvador and Guatemala export clean bio-fuels while Iran, Kenya, Sri Lanka and Nepal are the exporters of artisanal manufactures such as hand brooms (UNCTAD, 2003).

Developing countries may extract economic benefits also by exporting environment related professional services in the form of studies, assessments and consultancies. Cuba has provided such services to various countries in Latin America and the Caribbean.

Transfer of Technology and Capacity Building: Provision of environmental services requires high levels of investment and expertise. The commercial presence of foreign enterprises may contribute to increased investment and capital formation, improvements in the coverage and quality of environmental services, transfer of technology and capacity building.

Environmental Benefits: Improved access to environmental goods at lower costs will help improve the effectiveness of environmental investment programmes undertaken by enterprises and governments. This can lead to improved quality of life of people in terms of a cleaner environment. It will also increase the regulatory capacity of environmental protection in these countries. As barriers are removed from products for which developing countries have competitive advantage, these countries can realise economic growth and development patterns that are more environmentally sustainable over time.

X. Trade of Environmental Goods and Services

10.1 Barriers to Trade of EGS

Tariff Barriers

Limitations to trade in environmental products and services arise mainly from tariff barriers. Currently applied bound tariffs on many capital goods used to provide pollution-management services are low in developed countries – generally under 3 percent for products on the OECD list. In most developing countries these tariffs remain relatively high, with bound tariffs ranging from 20 to 40 percent and applied rates mostly ranging from 10 to 20 percent (UNCTAD, 2003).

Non-Tariff Barriers

Non-tariff barriers can take various forms, such as standards, certifications, subsidies and environmental regulations. Standards and certification requirements limit trade to a great extent. Products from developing countries cannot enter the market due to lack of appropriate standards for their products, which may be quite stringent protection against competition from foreign suppliers of services. Restrictions on foreign direct investment (mode 3 of GATS) act as trade barriers. Developed countries have not specified many of such limitations. However, environmental services trade may be affected by the lack of market access in other related services sector such as construction, engineering, legal and consulting services. In some cases financial guarantees are required for cross-border supply (mode 1 of GATS). Individual service suppliers may be affected by restrictions on the movement of natural persons (mode 4 of GATS), including licensing requirements. Suppliers of professional services may be affected by requirements relating to qualification and working experience (UNCTAD, 2003). Subsidy provided to the domestic environment industry is another form of trade barrier for EGS from other countries. Developing countries' services markets may also be affected by environmental regulations taken pursuant to technical assistance which favours the donor country's suppliers (S/CSS/W/46). Cleaner production and resource management services depend on access to environmentally sound technologies. Some of such existing technologies may involve proprietary knowledge developed by and belonging to the transnational corporations. Barriers to trade in EGS may also be created where specific patented or patentable technical knowledge is adopted as a standard for an industry through government regulations, standards or special provisions in MEAs.

10.2 Markets for EGS

Environmental goods and services play an important role in international trade. The size of the global market for environmental goods and services was estimated to be US\$453 billion in 1996, US\$522 billion in 2000, and US\$540 billion in 2001. The market is dominated by the developed countries with a share of 90 percent while the share of the EU, the United States and Japan amounts to 85 percent of the total market (OECD, 2001). The industry for environmental goods and services has grown at a rate of 14 percent between 1996 and 2000 and is expected to expand to US\$ 600 billion by 2010 (WT/CTE/W/67/Add.1). Although the market for environmental goods and services has been confined to developed countries, developing countries are also

coming up since the environmental standards and regulations are becoming strict. The growth of market in the developed countries has reached a saturation point at 3-5 percent while the market in developing countries is expected to grow at a rate of 8-12 percent per annum (UNCTAD, 2003). The most important sectors are wastewater treatment, wastewater management and air pollution control.

XI. Current State of Play

Though it was decided that paragraph 31(iii) should be implemented in the context of market access and services negotiations, the CTE will facilitate classification and help with monitoring of environmental goods and services. Negotiations on environmental goods take place in the NGMA whereas negotiations on environmental services are conducted in the Special Sessions of the CTS. The classification work on environmental services is done in the Committee on Specific Commitments, which may eventually submit recommendations to the CTS. The deadline for negotiations on both environmental goods and services is 1 January 2005 as part of the single undertaking. It may be mentioned that negotiations on environmental services is not new and had started officially in 2000 as part of the WTO built-in agenda on services in general. The WTO General Agreement on Trade in Services (GATS) commits WTO members to undertake negotiations on specific issues and to enter into successive rounds of negotiations to progressively liberalise trade in services.

11.1 Environmental Goods

In the absence of any universally accepted definition of environmental goods the OECD and the APEC lists have been circulated in the NGMA. Countries have different views on both the lists. While some countries consider them as starting notes for discussion in the negotiating table, some rule out their possibility of being the basis for negotiations. Developing countries have concerns that the definition of environmental goods is too heavily focused on goods of interest to developed countries. Most of the definitions focused on industrial products that are used to clean the environment or to mitigate environmental pollution. Therefore, developing countries want that product coverage of environmental goods need to include more products of export interest to them. India, for example, argues that environmentally preferred products should be included. New Zealand presented a paper clarifying the concept of environmental goods and was supported by most of the members (TN/TE/W/6). However, the EU wanted to include goods that were environment

friendly (i.e.; goods which are easy to recycle) and were produced in an environment friendly manner. Some countries including Malaysia, India, Korea and New Zealand were concerned that this would involve production process methods (PPM), that is, making information available on the way products are manufactured or processed and the way natural resources are extracted or harvested. Concerns were centred around a number of issues: (i) how products with multiple end-uses would be classified; (ii) whether PPM and end-use criteria would be needed to define environmental goods; (iii) how the harmonised system would capture those goods; and (iv) how the relativity of the concept of “environmental friendliness” would be tackled. It was mentioned that some goods that are considered environment friendly in some parts of the world could be considered not environment friendly in other parts. It was suggested by some members that the definition should be the precondition for progress to be made on the issue.

Switzerland raised the idea of including products with environment friendly physical characteristics such as bicycles and solar cookers. Japan also submitted a paper outlining a list of goods that it felt should be included in the negotiating group on market access (TN/TE/W/17; TN/MA/W/15).

Some argue that environmental goods can be agricultural goods and that the PPM issue is linked to agricultural goods as well. Australia rejected the fact that an agricultural good could also be an environmental good. Senegal and some of the countries of the Cairns Group (consisting of Argentina, Australia, Brazil, Canada, Chile, Colombia, Fiji, Hungary, Indonesia, Malaysia, New Zealand, Paraguay, the Philippines, Thailand and Uruguay), such as Chile, are pushing the EU to include agricultural goods as environmental goods. India has suggested jute as an environmental good while Qatar proposed to include natural gas on the list of environmental goods (TN/TE/W/14; TN/TE/W/19; TN/MA/W/24). Another section within the Cairns Group is in favour of no particular definition for environmental goods as such. They opine that whether a good is an environmental one or not will depend on the requests and offers made by the countries in negotiations.

There has not been any progress on defining environmental goods or on recommendations for future actions for the forthcoming Cancun meeting. Members are divided basically into two groups over the definition and identification of environmental goods: (i) those who consider the APEC and OECD lists of

environmental goods as adequate; and (ii) those who think that there should be a WTO list of environmental goods in the light of the Doha mandate. It is anticipated that the discussion will continue until the final month before the Cancun meeting as the members have been asked to submit lists of environmental goods.

The USA who is the world's biggest producer and consumer of pollution control equipment and services and the second largest exporter after Germany and Japan, has supported the list prepared by APEC and encouraged members to consider this list as the starting point for discussions. The USA has also rejected the idea of including goods based on PPM (TN/TE/W/34). Qatar has proposed to include energy efficient technologies and the natural gas and liquid fuels used for these technologies. It links its proposal with the objectives of MEAs in particular the UNFCCC and its Kyoto Protocol and claims that non-tariff barriers are serious impediments to global trade in these goods.

11.2 Environmental Services

The reduction on tariff and non-tariff barriers to environmental services described in paragraph 31(iii) was initiated even before Doha, though liberalisation of environmental goods is a new addition. The GATS definition on environmental services include sewage services, refuse disposal services, sanitation and similar services, other services (e.g. cleaning of exhaust gases, noise abatement, nature & landscape protection services, etc.).

The OECD criticises the GATS classifications on the grounds that (i) services do not specify media (i.e. air, water, soil, noise); (ii) focuses on "end-of-pipe" approaches rather than on pollution prevention and sustainable resource management services; (iii) services focus on operation of facilities, rather than on building and upgrading them; and (iv) services target general community rather than industry.

The EU has proposed to create 7 purely environmental sub-sectors: (i) water for human resources and wastewater management; (ii) solid/hazardous waste management; (iii) protection of ambient air and climate; (iv) remediation and cleanup of soil and water; (v) noise and vibration abatement; (vi) protection of biodiversity and landscape; (vii) other environmental and ancillary services. The EU suggested that dual use services (other services with environmental components) should remain classified elsewhere. The EU proposes that these services could be included in a

checklist that could be used as an aide-memoire during negotiations. The proposal encourages liberalisation without restrictions on modes 1, 2 and 3. It seeks further discussions on how to facilitate the temporary movement of natural persons for the provision of specific environmental services.

The US proposal suggests setting up a core list of environmental services, such as in the current classification, and a list of environment-related services that are necessary to the provision of environmental services, such as business services, architectural services, recycling services, construction, engineering, and consulting services. Both core and related services should be liberalised. USA proposes that the specific focus of such liberalisation would be most beneficial in the context of GATS mode 3 (commercial presence) and mode 4 (movement of natural persons).

The Canadian proposal encourages liberalisation in all modes of delivery and in all sub-sectors in the present list (core services) and other related services (non-core or dual use services). The Swiss proposal suggests a classification in six sub-sectors very similar to those proposed by the EU. The Australian proposal supports the re-classification suggested by the EU. It stresses the importance of liberalising mode 3 and calls for increased transparency in national regulations of the sector.

The Cuban proposal (S/CSS/W/142) is based on the assumption that opening up of the markets will contribute to the development of the environmental services in developing countries if appropriate conditions are established for health, safety and environmental protection, and domestic capacities are strengthened. Domestic capacity-building must be one of the guaranteed results of negotiations on environmental services. For this to happen, transfer of technology and associated know-how, the creation of national technical capabilities and the conditions favourable to the export of services from developing countries should be ensured.

Columbia notes that if international trade in services is to become more balanced, the developed countries will need to take commitments on market access concerning the movement of individuals so as to allow the procurement of environmental services at the international level (S/CSS/W/121).

The proposal on environmental services was driven mainly by the USA, the EU, Japan and Australia because they all have a number of environmental services. In the absence of any specific definition countries are using various categories for

environmental services in their bilateral negotiation requests. For example, environment-related consultancy services, such as firms giving advice on waste management or pollution treatment have been considered as environmental services. The WTO Secretariat has produced a discussion paper that shows the linkages between services trade liberalisation and the environment in the areas relevant to tourism, transport and environmental services (WT/CTE/W/218).

Table 6: Submissions/Contributions on Environmental Goods and Services Since Doha

Country//Document/Date/Committee	Submissions/Contributions
United States TN/TE/W/34 19/6/2003; CTESS	Supported the APEC list as a starting point for discussions
United States TN/TE/W/8 9/7/2002; CTESS	Negotiations on environmental goods – Identified the issues to be considered in defining the scope of environmental goods subject to negotiations and the negotiating process
Qatar TN/TE/W/14 9/10/2002; CTESS	Environmental Goods – Suggested to include energy efficient goods such as combined-cycle natural gas-fired generation systems and advanced gas turbine systems in the light of environmental goods
Qatar TN/TE/W/19; TN/MA/W/24 28/1/2003; CTESS; NGMA	Provided a list of efficient, lower-carbon and pollutant-emitting fuels and technologies to be included in the OECD list of environmental goods
New Zealand TN/TE/W/6 6/6/2002; CTESS	Referred to previous work by APEC and OECD which are good starting point for discussion on the clarification of the concept of environmental goods and services
Japan TN/TE/W/17; TN/MA/W/15 20/11/2002; CTESS; NGMA	Made a proposal on modality. Outlined a list of environmental goods

XII. Issues for Bangladesh

Bangladesh is a net importer of environmental goods. It imports 125 items on the OECD list of environmental goods which was about US\$184 million. This was about 2.2 percent of total imports to Bangladesh in 2000. Tables 7 and 8 show the classification of environmental goods imported to Bangladesh. Import in the pollution management category is the highest which is 88.2 percent of total imports of environmental goods into the country. This group includes goods such as air pollution control, wastewater management, solid waste management, remediation and cleanup, noise and vibration abatement, and environmental monitoring, analysis and assessment. The share of import in the resource management category is 8.6 percent and of the cleaner technology and products group is 3.2 percent of total imports of environmental goods. Data on exports of environmental goods is not available.

Table 7: Bangladesh's Imports of OECD Classified Environmental Goods (2000)

Product	Import (US\$ '000)
A. Pollution Management	
1. Air pollution control	29,754
2. Wastewater management	67,637
3. Solid waste management	27,140
4. Remediation and cleanup	2,581
5. Noise and vibration abatement	25,311
6. Environmental monitoring, analysis and assessment	10,492
B. Cleaner Technologies And Products	
1. Cleaner/resource efficient technologies and processes	N/A
2. Cleaner/resource efficient products	5,915
C. Resources Management Group	
1. Indoor air pollution control	N/A
2. Water supply	262
3. Recycled materials	N/A
4. Renewable energy plant	2,095
5. Heat/energy savings and management	13,434
6. Sustainable agriculture and fisheries	N/A
7. Sustainable forestry	N/A
8. Natural risk management	N/A
9. Eco-tourism	N/A
10. Other	N/A
GRAND TOTAL	184,621

Source: TN/TE/W/33; UNCTAD, 2002.

Table 8: Total and Environmental Imports of Bangladesh (2000)

Number of OECD Environmental Products imported	125
Import Volume of Environmental Products (US\$ '000)	184,621
Total Import Volume of Bangladesh (US\$ '000)	8,360,000
Imports of Environmental Products as a percentage of Total Imports	2.21%

Source: TN/TE/W/33; UNCTAD, 2002.

As environmental goods and services sector play a key role in sustainable development strengthening of these sectors in the developing and least developed countries within a global framework is of key importance. Bangladesh should engage itself in identifying and developing its own list of EGS by involving the industries and other stakeholders. Coordination between the Ministry of Commerce and the Ministry of Environment and collaboration among the ministries, research organizations, think tanks and trade bodies are essential in order to prepare a list of EGS.

There is also a need for analytical and empirical studies in order to assess the economic effects of tariff reduction on environmental goods and to measure the trade and environmental benefit as well as the cost of trade liberalisation. National policy

dialogues should be organised to clarify issues related to the liberalisation of trade in environmental services among the policy makers, members of the business community, non-government organizations, researchers, academics and other concerned sections of the society.

The need for capacity building is felt in the face of a gap in general understanding of issues related to the definition as well liberalisation of EGS in the broader perspective as well as due to lack of environment friendly technology. Therefore capacity building is required for human resource development through training and workshops. In order to participate in the global market the country also needs cleaner technology implying that there should be transfer of technology from developed countries.

While considering a list of environmental goods Bangladesh may include all environment friendly products in the list, provided such classification is not based on non-product related production process method (npr- PPMs describe a process or production method which does not affect or change the nature, properties or qualities of a product.). All countries except for the EU and Japan have opposed the inclusion of products made by npr-PPM. Organic products and certified timber products are distinguished based on npr-PPM and therefore, Bangladesh is not in favour of their inclusion in the list of environmental goods. The inclusion of traditional knowledge based non-timber forest products such as bamboo, honey, wax, gum, medicinal substances may be considered. However, Bangladesh needs to identify non-tariff barriers such as registration requirements, approval of health authorities in these products. Jute and clothes using natural dyes are other candidates to be included in the list of environmental goods of Bangladesh.

For environmental services Bangladesh needs to discuss whether there is any need to change or modify the existing GATS and CPC classifications of these services. If any such need arises then it has to find out what services it wants to include or exclude.

The environmental regulations in developed countries are discriminative against environment friendly and bio-degradable products from developing countries and favour local recycling and waste disposal systems. Bangladesh should urge for a discussion on the relaxation of regulations in the WTO in order to have a greater access of environment friendly products to developed countries.

PART D

THE EFFECT OF ENVIRONMENTAL MEASURES ON MARKET ACCESS: IMPLICATIONS FOR BANGLADESH

XIII. Introduction

It is apprehended by developing and least developed countries that environmental measures such as product standards, eco-labeling, sanitary and phytosanitary measures may have adverse effect on their trade as they are not always able to meet up the requirements of the developed countries. This will have in turn negative impact on the competitiveness and market access opportunities for these countries.

The cost of compliance to various requirements is an additional burden for them. It has been noted that environmental measures affect market access of foreign suppliers, particularly those from developing countries. These, along with lack of infrastructure, inadequate access to technology, inadequate access to environment friendly raw materials and inadequate access to information restrict the market access opportunities and competitiveness of developing and least-developed countries.

The importance of the effect of environmental measures on market access has been recognized in the WTO and has particularly expressed concern on the issue. Paragraph 32(i) of the Doha Ministerial Declaration in paragraph 32 describes that:

“32. We instruct the Committee on Trade and Environment, in pursuing work on all items on its agenda within its current terms of reference, to give particular attention to:

- (iv) The effect of environmental measures on market access, especially in relation to developing countries, in particular the least-developed countries among them, and those situations in which the elimination or reduction of trade restrictions and distortions would benefit trade, the environment and development;*

Work on these issues should include the identification of any need to clarify relevant WTO rules. The Committee shall report to the Fifth Session of the Ministerial Conference, make recommendations, where appropriate, with respect to future action, including the desirability of negotiation” (WT/MIN/(01)/DEC/W/1, 2001).

Discussions on paragraph 32(i) were made in the regular CTE where countries have expressed their concerns on the issue of market access. This Chapter discusses the implications of environmental requirements on market access potentials for Bangladesh in the context of Doha Ministerial Declarations. A brief discussion on various types of environmental measures, WTO agreements on environmental measures and trends in environmental measures is presented in Section XIV while post Doha developments on the issue are discussed in Section XV of this Chapter. Finally in Section XVI the implications for Bangladesh are discussed.

XIV. Environmental Measures

14.1 Types of Environmental Measures

Environmental measures which may have impact on market access are mainly of the following types: (i) Environmental regulations and standards (ii) Labeling, and (iii) Economic instruments.

(i) Environmental Regulations and Standards

There can be two types of standards related to products: *Product Standards* and *Production Standards*. Product standards refer to characteristics that goods must possess, such as performance requirements, minimum nutrient content, maximum toxicity or noxious emissions while *Production Standards* refer to conditions under which products are made.

These types of measures are legally binding and relate to: (a) the composition of products, that is what exactly the product contains, (b) the quality of the product, that is what is the longevity of the product, and (c) the performance of the product, that is, what is for example, the energy consumption and what is the emission level.

Bans on products: Due to widespread public concern over hazardous substances bans on products on environmental grounds are increasing. These bans are used on products in the export sector of developing and least developed countries such as textiles, leather and footwear. For example, azo dyes used in colouring in leather and textile industries in developing countries are prohibited for use in the leather and textile industries in the European Union.

The purpose of bans of products containing hazardous substances are aimed at protecting the domestic environment and public health in the importing country against the harmful effects of the consumption or disposal of domestically

manufactured and imported products. WTO rules allow countries to impose bans as long as such bans apply equally to domestic products.

Admission and registration procedures: This may be applied to pharmaceuticals, food, fertilisers, and pesticides. Certain substances may require a specific authorization before they are made available in the market.

Take back obligations: This obligation is an agreement between producers and retailers to take back and refuse or dispose of used products and packaging. Take back obligations exist in case of products such as waste oil, cars, batteries, cans and consumer electronics. Such obligations involve costs. For example, shipping imported products back to the country of origin could involve high costs and would generally not be desirable from an environmental point of view. Trade effects may arise when importers or foreign producers face administrative and procedural problems in discharging their legal responsibilities or when the associated costs have significant effects on the competitiveness of imported products.

(ii) Labeling

Labeling is providing information to producers and consumers on the health and environmental impact of products. It enables consumers to be informed about a product's characteristics or its conditions of production.

It can be compulsory or voluntary. Compulsory labeling provides information on one aspect of a product and is normally required by the government. These labels may give negative warning such as flammable and eco-toxic or indicate positive environmental characteristics such as biodegradable.

The issue of labeling in the context of WTO rules is horizontal since concern on labeling may also arise with regard to general product safety or performance, including food safety. Disciplines on labeling are provided for both in the Agreement on Technical Barriers to Trade (TBT) and in the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). So reporting on labeling may have implications for both the TBT and SPS Committees

Poorly designed labeling measures, whether voluntary or mandatory could have market access effects on all countries, particularly on developing and least developed countries. Labeling requirements to indicate the country of origin or geographical

indicators can also affect trade and implicate intellectual property rights provisions in trade agreements.

Labeling that describes how a product is produced is termed as labeling based on a process or production method (PPM). PPM can be classified into two types: (i) product related PPMs, and (ii) non product related (npr) PPMs.

- (i) Product related PPMs refer to process and production methods which affect the nature, properties or qualities of the product itself and its ability to have direct impact on, for example, the environment in the country of use. It typically describes a process or production method which changes the characteristics of the final product and that PPM is discernible in the change. Product related PPMs are normally dealt with through product specifications. This type of PPM is most frequently found in the case of industrial process requirements to ensure a product's quality or fitness for use, for example, rules for metalising practices to prevent corrosion or ensure strength or pasteurisation of milk.
- (ii) Non-product related PPMs describe a process or production method which does not affect or change the nature, properties or qualities of a product. For example, harvesting of fish. A fishing vessel that uses a net with mesh size larger than another fishing vessel could catch the same fish in the sea. The final product (e.g. fish) is not affected by the production method (e.g. mesh size of fishing net). However, the mesh/net size or catch method more generally can affect other sea-life and shared living resources (e.g. an impact on the ability of non-target species or to escape capture). Other examples of non-product related process and production methods not related to the environment include labour standards or the welfare of animals in farming practices for agricultural products.

Labeling is also used for the sole purpose of describing life-cycle analysis (LCA). LCA is used to analyse the full environmental impact of a single product, including, for example, water and energy use and release of various pollutants. An LCA would combine and consider all the environmental impacts of a product's production, use and disposal.

Though labeling is less trade restrictive than many other regulatory measures labeling can still have impact on trade on the basis of its content, scope and nature. Since labeling requirements vary from market to market, producers may face difficulties to comply with such requirements, particularly in developing and least developed countries.

Increasing awareness of environmental issues has led to a situation where environmental characteristics of products have become increasingly important to consumers resulting in a growing market in developed countries for what are called “green products”. Eco-labels that highlight their environmental attributes are placed on these products. In order to protect consumers’ interests, governments and non-governmental organisations have organised, adopted and verified eco-labeling programmes. Thousands of products in more than 25 countries are covered by these eco-labeling schemes, which have different names in their respective countries such as Germany’s Blue Angel Mark, Taiwan’s Green Mark, Canada’s TerraChoice and Japan’s EcoMark. The International Organisation for Standardisation (ISO) has taken initiatives to develop international standards within the ISO 14000 series for eco-labeling. Among developed countries, West Germany, Japan, Canada, New Zealand, the EU and Australia were the fore-runners in eco-labeling, while among developing countries India, China, Malaysia, Indonesia, Thailand and Brazil are also developing their own eco-labeling schemes. The advocates of the eco-labeling policy suggest that it can improve the environmental situation without the ‘command and control’ approach and can meet global environmental objectives.

(iii) Economic Instruments: Product taxes and charges

Product taxes can be based on some characteristics of the product, for example, on the sulphur content in mineral oil or on the product itself, for example, mineral oil. Product charges may be imposed in order to increase revenues and to discourage the production and consumption of products on which the tax is levied.

14.2 WTO Agreements on Environmental Measures

There are two standards related Agreements - Agreement SPS and Agreement TBT. Under TBT and SPS Agreements countries are encouraged to adopt international standards though they are given flexibility in introducing more rigid or more lax regulations. Scientific justification is required for more rigid regulations.

Agreement on Sanitary and Phytosanitary Measures

SPS measures are border control measures necessary to protect human, animal and plant life or health which aims to prevent domestic sanitary and phytosanitary standards from being trade restrictive and protectionist. It focuses on protecting human, animal and plant life and saving country from risks arising from the entry of pests, toxins, diseases and additives.

Agreement on Technical Barriers to Trade

This agreement relates to trade restrictive effect arising from the application of technical regulations or standards such as testing requirements, labeling requirements, packaging requirements, marketing standards, certification requirements, origin marking requirements, health and safety regulations and SP requirements. This aims to ensure that regulations, standards, testing and certification procedures, which vary from country to country, do not create unnecessary obstacles to trade.

14.3 Trends in Environmental Measures

In developing countries environmental requirements are highest in those sectors which has export potentials and which have comparative advantage, such as textiles and clothing, leather and leather products, footwear, forestry products and food products. The cost of compliance is more on the small and medium-sized entrepreneurs (SMEs) in developing and least developed countries.

The requirements on environmental measures have also been increasing over time. It has been reported that the share of environment related notifications under the WTO Agreements on TBT increased from 9.7 percent in 1991 to 11.1 percent in 2001 (WTO, 2001).

From this point of view environmental measures work against the objective of sustainable development by reducing market access. It has been demanded by developing and least-developed countries that a longer time frame is required to achieve standards of sustainable development. Market access during this period should not be denied to products from these countries since economic growth and employment in such countries are dependent to a great extent on the export of their products.

Environmental measures have negative impacts on the market access opportunities of developing and least developed countries in various ways. Relatively more competitive sectors in developing countries such as fishery and forestry products, leather, textile and electronics are facing more stringent environmental regulations.

XV. Post Doha Development

The CTE of the WTO has emphasised the importance of market access opportunities to assist these countries. India submitted a paper highlighting how environmental measures act as a barrier for exporting goods from developing countries (WT/CTE/W/207). It has also made a number of proposals in order to minimise the adverse effects of environmental measures on the market access of developing countries. The proposal received tremendous support from developing countries. The Quad (Canada, Japan, the USA and the EU) agreed to discuss India's proposal but said that not everything it contained was achievable.

On the issue of labeling countries debated whether the CTE was the right place to address the labeling issue. Most of the members prefer to deal with the issue at the Committee on Technical Barriers to Trade (CTBT). Switzerland proposed that: (i) the WTO secretariat should look at and compile the definitional aspects for eco-labeling, for instance by referring to the work done at the ISO; and (ii) the CTE could look at the work done in the CTBT on specific trade concerns relevant to environmental labeling. Many developing and some developed countries argue that the relevant work around specific trade concerns and eco-labeling should be looked at by the CTBT. But the Swiss were convinced that the CTE has a mandate to address the labeling issue. The EU proposed that the CTE and the CTBT should work together towards devising guidelines or interpretation of the TBT Agreement with respect to labeling requirements for environmental purposes.

Developing countries, however, are concerned that eco-labeling could stand as a barrier to their market access. If a label is developed only on the basis of local environmental conditions, there is a risk that goods that are not the cause of the problem may be excluded. Products from developing countries are unlikely to qualify for eco-labeling schemes in developed countries because of the lack of "green technologies" – that is technologies that are environmentally sound and advanced.

The EU has very stringent rules on labeling requirements which demand provision of information to consumers on social and health safety. Even developed countries such as Canada and the USA are wary of eco-labeling requirements as they consider that it is equivalent to ban on their products. The EU wanted the precautionary principle to be one of the issues under discussion but could not get it included either in paragraph 31 or in 32 since there was strong resistance to it. Precautionary principle is closely connected to the issues raised in paragraph 32(iii) that is, labeling. Many countries have introduced PPM for their imports. The Dutch government has made it mandatory that there should be labeling on imported timber. That is, in the case of timber, written information should be provided as to whether it comes from a sustainably managed forest or not. The Belgian parliament has also announced that all products have to be labeled. Such requirements have created tension among developing countries. Table 9 presents a summary of the contributions made by some countries on issues related to the market access.

Table 9: Submissions/Contributions on Market Access Issues Since Doha

<i>Country//Document/Date/Committee</i>	<i>Submissions/Contributions</i>
PARAGRAPH 32(i) - MARKET ACCESS	
India WT/CTE/W/207 21/5/2002; CTE	Made a number of proposal to ensure that environmental measures do not affect the market access of developing countries
PARAGRAPH 32(iii) – ECO-LABELING	
European Union WT/CTE/W/212 12/6/2002; CTE; CTBT	Argues for a continued exchange of information including an examination of relevant work in international and regional fora, and consideration of the need to reach some form of common understanding, interpretation or guidance for labeling requirements.
Canada G/TBT/W/174 31/5/2002; CTBT	Labeling and requirements of the agreement on technical barriers to trade (TBT). Outlines a number of considerations for a more structured discussion

XVI. Implications for Bangladesh

Market access has been an issue of concern for Bangladesh since the economy of Bangladesh has been integrating with the global economy at a fast pace. Bangladesh has taken a number of initiatives for trade liberalisation and trade expansion in the 1990s in order to stimulate exports and promote investment in export-oriented activities. Trade liberalisation took place in the form of reduction of tariff rates, reduction in quantitative restrictions, reduction of tariff dispersion and withdrawal of quota restrictions. This has resulted in the following developments: (i) increased market access to foreign products through reduction in tariff rates; (ii) accelerated growth of exports from the country; (iii) increased volume of foreign direct

investment (FDI); and (iv) participation of a growing number of Bangladeshi workers in the global labour market. Average tariff rates came down from 85 percent in 1991/1992 to about 17 percent in 2000/2001. The number of tariff slabs was brought down from 22 to 5 over the same period and the degree of openness (that is the share of exports and imports in GDP) of the Bangladesh economy rose from 0.23 in the early 1990s to 0.34 by the end of the 1990s.

The shift in the trade policy regime in Bangladesh towards liberalisation has contributed to a significant growth of the export sector during the 1990s. Real growth of the export sector was more than 10 percent per annum, which was double the growth of real GDP over the same period. The export policy of Bangladesh over the past decade has enabled the country to achieve important structural shifts in the sector – both product-wise and market-wise. The ratio between traditional and non-traditional exports changed from 40:60 to 10:90, between 1991 and 2001. Imports grew by about 8 percent per annum in the 1990s as the flow of imports for both export oriented and domestic industries was facilitated by liberalisation of imports.

On the other hand, Bangladesh is grappling with several environmental problems such as land degradation, water, air and noise pollution, degradation of natural forests, wetland and coastal environments, depletion of fisheries, unregulated dumping of hazardous wastes and a rising sea level. These environmental problems arise mainly from industrial pollution, excessive use of chemical fertiliser, and unsustainable commercial exploitation of natural resources, floods and other natural hazards. Tremendous pressure on limited resources is also felt due to high population growth and poverty which gives rise to urbanisation and other social problems. Though there are conflicting views on the links between poverty and environmental degradation in developing countries (Pearce and Warford, 1993) it is obvious in many cases in Bangladesh that poverty-population-environment forms a nexus that creates a vicious cycle of poverty. The population level, which is much above the carrying capacity of Bangladesh (Khatun, 2000), is partly responsible for exacerbating poverty and environmental degradation. On the other hand, environmental degradation is inducing poverty by making less resources available than required.

While the majority of the environmental problems in Bangladesh are domestic in nature some of them are also global and some are directly or indirectly linked to

international trade. These are chemical use in agriculture, deforestation, exploitation of fish resources and industrial pollution.

It is evident from the above discussion that environmental measures have an important role in market access opportunities for Bangladesh. Though in some cases environmental requirements may improve market access by reinforcing consumer confidence and boosting demand, there is lack of adequate capacities in developing and least developed countries to ensure compliance with the required standards. It is difficult for Bangladesh to respond to such requirements as it involves additional costs which may reduce competitiveness.

Establishing a clearer guidance for the development of environmental requirements may be helpful. Delivery of effective technical assistance is a prerequisite for compliance to various requirements. It is also important to have access to information timely on the proposed and existing requirements and schemes. Participation of Bangladesh in the international standards setting bodies will help to overcome obstacles in many ways.

PART E

CONCLUSIONS AND RECOMMENDATIONS

The structure and interests of the environmental lobbies in many European countries have changed since Doha as many instances have shown them to be divided over a number of issues, which has given rise to the basic question as to whether the environment is considered to be a true concern or merely a negotiating tactic for countries. The negotiating agenda as delineated in paragraph 31 has been discussed at length without any common understanding of the issues, and making the issues appear controversial on many occasions. As regards paragraph 32 of the Doha Declaration, there were discussions on various aspects including the possibility of including the issues for negotiations.

Thus, it is obvious that the implementation and the realisation of what has been achieved in Doha still require substantial efforts. Nothing concrete has come out of the CTE meetings and this got reflected in the report of the trade and the environment group in Cancun. The stand-still in terms of reaching a widely accepted position could be a relief for both developing and least-developed countries as well as for some developed countries for the time being. Nevertheless, they must be prepared to deal with the issues sooner or later since most of these countries are still far behind in adopting mutually supportive policies on trade and the environment which are essential for achieving sustainable development.

Bangladesh has interests in almost all the environment-related issues in the Doha mandate as these have direct bearing on both trade and environment of the country. Though Bangladesh may extract some trickle-down benefits from the moves and positions taken by developed countries who oppose many of the environmental measures for fear of market restrictions, Bangladesh needs to make an assessment of the implications of the Doha trade-environment agenda and closely follow the developments in the CTE and TNC on these issues in order to firm up its position and formulate its own strategy for adopting mutually supportive trade and environment policies. A number of recommendations are suggested here in order to achieve the above objective.

Mainstreaming of Environmental Concerns: While formulating or adopting a policy on trade the environmental aspects in terms of its environmental implications should

be considered. The officials from the Ministry of Environment should be consulted and involved in the exercise.

Information Exchange and Coordination: It is very important to exchange information and coordinate work between the relevant ministries. The Ministries of Commerce and Environment have to work closely, exchange relevant information and organize joint programmes for better co-ordination of their work on common issue.

Impact Assessment: Sustainability Impact Assessment (SIA) is of particular importance to Bangladesh in order to ensure that benefits of trade are appropriately realised and that the potential adverse impacts are mitigated or avoided. SIA of trade negotiations is one mechanism to devise mutually supportive trade and environmental policies which are essential for sustainable development. Bangladesh has to undertake such SIA to look at the environmental impacts of trade-induced economic and regulatory changes across sectors including agriculture, industry and services well in advance so that the results can be used by the policy makers in developing policies and in taking part in the negotiations.

Monitoring WTO Negotiations: Bangladesh has to monitor the development of the WTO negotiations in all sectors, particularly those having environmental implications, for example, AoA, GATS and TRIPS. In order to monitor and participate in the developments of the WTO negotiations in all sectors, including the environment, the rules of the WTO should be studied and followed carefully. It is important to study the WTO provisions on subsidies, SPS, TBT which are environmentally motivated in many cases.

Improve Capacity of the Ministries and Geneva Mission: Insufficient human resources make it extremely difficult to follow and act on many areas of negotiations in the WTO. Both the Ministry of Commerce in Dhaka and the Mission in Geneva should be strengthened by engaging more people to deal with all the important issues with equal competence. Private sector representatives can also have their own offices and representatives in Geneva.

Engage Non-Government Experts: Given the complexity and volume of issues and the scarcity of specialists on trade and environment issues within the government experts from the non-government and private sector may be invited to discussions, meetings and negotiations.

Tapping Technical Assistance (TA) and Capacity Building (CB): Bangladesh should be active in taking advantage of the TA and CB programmes available from various sources. The implementation of many WTO obligations requires skill and efficiency, which are not available in most cases. Bangladesh needs TA and CB for many areas including the understanding of WTO related issues, the development of national standardisation bodies, conformity assessment services and accreditation agencies. These programmes should be available for officials of the Ministries of Commerce and Environment in particular and for other related Ministries such as Agriculture, Industry, and Health in general. Members of the civil society institutions, academia, NGOs, private sector, business community and consumers should also be included in the CB programmes.

REFERENCES

- Anderson, Kym and Richard Blackhurst. 1992. "Trade, the environment and public policy" in Kym Anderson and Richard Blackhurst (eds.) *The Greening of the World Trade Issues*, Harvester Wheatsheaf, London.
- Anderson, Kym. 1992. "Agricultural Trade Liberalisation and the Environment: A Global Perspective", *The World Economy*, 15(1), pp 153-71.
- Daly, Herman. 1991. *Steady-State Economics*, Washington D.C.: Island Press.
- Daly, Herman and John B. Cobb. 1989. *For the Common Good: Redirecting the Economy toward Community, the Environment, and a Sustainable Future*, Boston, Mass: Beacon Press.
- General Agreement on Tariffs and Trade (GATT), 1992. *International Trade 1990-91*, Vol. 1, Geneva.
- G/TBT/W/174 – Labeling and Requirements of the Agreement on Technical Barriers to Trade (TBT): Framework for Informal Structured Discussions, communication from Canada, WTO.
- JOB (03)/150/Rev2. Draft Cancun Ministerial Text, Second Revision, 13 September 2003.
- Khatun, Fahmida A. 2000. "Population and Environment in Bangladesh: Designing A Policy Accounting for Linkages", CPD-UNFPA Paper No. 12, Dhaka, Bangladesh.
- Markandya, Anil. 1994. "Is Free Trade Compatible with Sustainable Development?", *UNCTAD Review*, Geneva.
- MTN.GNS/W/120, 1991. Services Sectoral Classification List, Note by the Secretariat, WTO.
- OECD, 2003. COM/ENV/TD (2003) 10/FINAL, "Environmental Goods: A comparison of the APEC and OECD lists"
- OECD, 2001. Environmental Goods and Services – The Benefits of Further Trade Liberalisation, Paris.
- OECD/Eurostat, 1999. *The Environmental Goods and Services Industry, Manual for Data Collection and Analysis*.
- Pearce, David. W. and Jeremy J. Warford. 1993. *World Without End: Economics, Environment and Sustainable Development*, Oxford University Press.
- Ropke I. 1994. "Trade, Development and Sustainability: A Critical Assessment of the Free Trade Dogma" in *Ecological Economics*, Vol. 9, No. 1, January.

- S/CSS/W/46. 1998. “Environmental Services”, Background Note by the Secretariat, Council for Trade in Services, WTO.
- S/CSS/W/121. 2001. Communication from Columbia: Environmental Services, WTO.
- S/CSS/W/142. 2002. Communication from Cuba, Negotiating Proposal on Environmental Services, WTO.
- TN/MA/W/15. 2002. Market Access for Non-Agricultural Products, communication from Japan, WTO.
- TN/MA/W/24. 2003. Negotiations on Environmental Goods: Efficient, Lower-Carbon and Pollutant-Emitting Fuels and Technologies, submission by Qatar, WTO.
- TN/TE/W/1. 2002. Multilateral Environmental Agreements (MEAs): Implementation of the Doha Development Agenda, submission by the EU, WTO.
- TN/TE/W/2. 2002. Mandate under Paragraph 31(i) of the Doha Declaration on Trade and Environment, submission by Argentina, WTO.
- TN/TE/W/4. 2002. Multilateral Environmental Agreement (MEAs): Implementation of the Doha Development Agenda, submission by Switzerland, WTO.
- TN/TE/W/6. 2002. Environmental Goods, submission by New Zealand, WTO.
- TN/TE/W/7. 2002. Suggested Procedure for the Negotiation under Paragraph 31(i) of the Doha declaration, submission by Australia, WTO.
- TN/TE/W/8. 2002. Negotiations on Environmental Goods, communication from the United States, WTO.
- TN/TE/W/10. 2002. The Relationship Between Existing WTO Rules and Specific Trade Obligations set out in Multilateral Environmental Agreements (MEAs), submission by Japan, WTO.
- TN/TE/W/11. 2002. Contribution on Paragraph 31(i) of the Doha Ministerial Declaration, submission by Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, WTO.
- TN/TE/W/12. 2002. Negotiations under Paragraph 31(i) of the Doha Ministerial Declaration, submission by New Zealand, WTO.
- TN/TE/W/13. 2002. Specific Trade Obligations (STOs), submission by the Republic of Korea, WTO.
- TN/TE/W/14. 2002. Environmental Goods, submission by Qatar, WTO.
- TN/TE/W/17; TN/MA/W/15. 2002. Market Access for Non-Agricultural Products, communication from Japan, WTO.

- TN/TE/W/18. 2002. List of Environmental Goods, WTO.
- TN/TE/W/19; TN/MA/W/24. 2003. Negotiations on Environmental Goods: Efficient, Lower-Carbon and Pollutant-Emitting Fuels and Technologies, submission by Qatar, WTO.
- TN/TE/W/20. 2003. Sub-Paragraph of the Doha Declaration, Submission by the United States, WTO.
- TN/TE/W/21. 2003. Meeting of the Special Session of the Committee on Trade and Environment, 12-13 February 2003, contribution by Switzerland, WTO.
- TN/TE/W/22. 2003. Discussion Paper on the Concept of Specific Trade Obligations (STOS), Submission by Canada, WTO
- TN/TE/W/23. 2003. Relationship between Specific Trade Obligations Set Out in MEAs and WTO Rules, Submission by India.
- TN/TE/W/24. 2003. Statement by Hong Kong, China at the Meeting of the Special Session of the Committee on Trade and Environment, 12-13 February 2003.
- TN/TE/W/25. 2003. Contribution by Norway, Contribution by Norway at the Special Session of the Committee on Trade and Environment, 12-13 February 2003, February 2003.
- TN/TE/W/26. 2003. The Relationship between WTO Rules and Specific Trade Obligations Set Out in MEAs, Submission by Japan, April 2003.
- TN/TE/W/28. 2003. Paragraph 31(1) of the Doha Declaration - Specific Trade Obligations Set Out in Multilateral Environmental Agreements – Implementation of CITES in Hong Kong, China, Submission by Hong Kong, China, April 2003.
- TN/TE/W/29. 2003. Paragraph 31(1) of the Doha Ministerial Declaration, Submission by Malaysia, April 2003.
- TN/TE/W/31. 2003. The Relationship between MEAs and WTO Agreements: Set out in MEAs”, Submission by the European Communities.
- TN/TE/W/32. 2003. Statement by Switzerland at the Meeting of the Special Session of the Committee on Trade and Environment, 1-2 May 2003, Submission by Switzerland.
- TN/TE/W/33; WT/CTE/W/228. 2003, OECD Joint Working Party on Trade and Environment: Environmental Goods: A Comparison of the APEC and OECD Lists, WTO.
- TN/TE/W/34, 2003. Liberalizing Environmental Goods in the WTO: Approaching the Definition Issue, submission by the United States, WTO.
- Tussie, Dianna. 2000. “Introduction” in Dianna Tussie (ed.) *The Environment and*

International Trade Negotiations, Developing Country Stakes, International Development Research Centre, Canada.

WT/CTE/W/67/Add.1. WTO, 1998. 'Environmental Benefits of Removing Trade Restrictions and Distortions', Note by the Secretariat.

WT/CTE/W/160/Rev.1. 2001. Matrix on Trade Measures Pursuant to Selected MEAs, Note by the Secretariat.

WT/CTE/W/207. 2002. The Effects of Environmental Measures on Market Access, Especially in Relation to Developing Countries, submission by India, WTO.

WT/CTE/W/212. 2002. Labeling, submission by the EU to the Committee on Technical Barriers to Trade, WTO.

WT/CTE/W/218. 2002. Discussion Paper on the Environmental Effects of Services Trade Liberalisation, Items 6 and 9, note by the Secretariat, WTO.

WT/MIN/(01)/DEC/W/1. 2001. Doha Ministerial Declaration, Ministerial Conference, Fourth Session, Doha 9-14, November 2001, WTO.

United Nations Conference on Trade and Development (UNCTAD), 2003. *Environmental Goods and Services in Trade and Sustainable Development*, Note by the UNCTAD Secretariat, Geneva.

United Nations Conference on Trade and Development (UNCTAD), 2002. UNCTAD Handbook of Statistics, Geneva.

United Nations. 2002. World Summit on Sustainable Development, held in Johannesburg, South Africa.

United Nations. 1992. Conference on Environment and Development, held in Rio de Janeiro, Brazil.

World Conference on Environment and Development. 1987. *Our Common Future*, Oxford University Press, UK.

World Trade Organisation. 1994. Agreement Establishing the WTO, Geneva.

World Trade Organisation. 2001. WT/CTE/EDB/131/corr.1, June 2002. Environmental Database for 2001.

World Trade Organisation. 2001. *Trading into the Future*, March, 2001, Geneva.